

### **REMARKS**

No claims are amended, added, or cancelled in this paper. Hence, Claims 1-32 are currently pending in the application.

### **SEVERAL IDSs HAVE BEEN FILED WITHOUT ACKNOWLEDGEMENT**

Applicants respectfully note that they have not received an initialed Form PTO-1449 acknowledging the Information Disclosure Statements (IDSs) filed on May 23, 2004 and June 7, 2004. Applicants respectfully request a copy of an initialed Form PTO-1449 to acknowledge receipt and consideration of the IDSs that were filed on May 23, 2004 and June 7, 2004.

### **SUMMARY OF THE REJECTIONS**

Claims 1-4 and 6-32 have been rejected under 35 U.S.C. § 102(e) as allegedly being unpatentable over U.S. Patent Number 6,622,170 issued to Harrison et al. ("*Harrison*").

Claim 5 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Harrison*.

The rejections are respectfully traversed.

### **RESPONSE TO REJECTIONS**

Each of the pending claims features one or more elements that are not disclosed, taught, or suggested by *Harrison*. Each pending independent claim is discussed below.

#### **A. CLAIMS 1, 18, 26, AND 27**

Claims 1, 18, and 27 each feature:

"receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a directory information tree, associated with the validity period value, is valid;  
when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree;

retrieving the quality of service policy management information from the currently active directory information tree only during the time period within the validity period value thereof' (emphasis added)

Claim 26 features:

"means for receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a directory information tree, associated with the validity period value, is valid;

means for determining, when quality of service policy management information is needed, which one of the directory information trees is a currently active directory information tree;

means for retrieving the quality of service policy management information from the currently active directory information tree only during the time period within the validity period value thereof' (emphasis added)

At least the above-underlined elements are not disclosed, taught, or suggested by the cited art.

*Harrison* teaches an approach for storing policy configuration information using a LDAP server. Under the approach of *Harrison*, when a LDAP client wishes to update policy configuration information, a new tree is created by cloning the current tree or a previous tree by building a new tree. When the LDAP client is finished updating the new tree, the path for using LDAP clients is set to the new tree and the clients are requested to read LDAP policy configuration information using the new path. If the new tree of policy configuration information is found to be unsuitable, the client's path is reset to the original tree and the clients are requested to read LDAP information policies using the reset path (See Abstract; Col. 6, lines 4-25).

*Harrison* does not teach a validity period value as claimed

While both *Harrison* and Claims 1, 18, 26, and 27 are directed towards storing policy information in a directory information tree, there are significant differences between the approach of *Harrison* and the features of Claims 1, 18, 26, and 27. For example, *Harrison* does not teach a validity period value as claimed. As expressly recited in Claims 1, 18, 26, and 27, a validity period value stores **information that defines a time period in which a directory information tree, associated with the validity period value, is valid.**

On the other hand, to show a validity period value, the Office Action cites a portion of *Harrison* (Col. 4, lines 50-62) that states, *in toto*:

A policy consists of a condition and an action. When a VPN/QoS device receives network traffic, the policy conditions are searched for a match. If a condition match is found, the associated action is performed. The following if-then statement illustrates the enforcement of a policy.

IF Network-Traffic matches Condition

THEN perform action

The condition consists of a validity period and a traffic profile. **The validity period defines the time frame in which the action should be performed.**

The validity period value featured in Claims 1, 18, 26, and 27 expressly requires that the “validity period value store[s] information that defines a time period in which a directory information tree, associated with the validity period value, is valid.” In sharp contrast, the validity period in the approach of *Harrison* defines the time frame in which an action of a policy should be performed.

Thus, the validity period of *Harrison* has no relation to a time period in which a directory information tree storing the policy is valid. To illustrate:

- (a) information about a policy, having a condition with a valid validity period, may be stored in a directory information tree associated with a validity period value, and the validity period value of the directory information tree may indicate the directory information tree is valid;
- (b) information about a policy, having a condition with a valid validity period, may be stored in a directory information tree associated with a validity period value, and the validity period value of the directory information tree may indicate the directory information tree is invalid;
- (c) information about a policy, having a condition with an invalid validity period, may be stored in a directory information tree associated with a validity period value, and the validity period value of the directory information tree may indicate the directory information tree is valid; and
- (d) information about a policy, having a condition with an invalid validity period, may be stored in a directory information tree associated with a validity period value,

and the validity period value of the directory information tree may indicate the directory information tree is invalid.

As illustrated above, the validity period of *Harrison* is completely independent of the validity period value expressly recited in the pending claims. Indeed, the directory information tree may store information about a first policy having a condition associated with a validity period that is valid, and the same directory information tree may store information about a second policy having a condition associated with a validity period that is invalid. Thus, knowledge of the validity period of a condition of a policy, under the approach of *Harrison*, in no way suggests a validity period value as claimed. The concepts are orthogonal.

The Office Action responds to the above argument by stating:

Harrison's validity period for a service action is the time frame that the customer subscribed QoS service (which is stored in a directory tree or sub-tree) must be performed or reinforced. Such a time frame is equivalent to the validity of the stored directory information because outside the specified time frame the policy would not be applicable to the customer's data traffic. (see page 8).

the defined validity period [of *Harrison*] sets a time frame in which the serviced action should be performed is equivalent to specifying the valid period of time during which the associated QoS policy must be applied because the services are subscribed by customers and therefore it must be reinforced in accordance with the specified actions and service duration. (page 3).

Based on the above arguments, the Office Action's position appears to be that the validity period of *Harrison* is analogous to a time period in which a directory information tree, associated with the validity period value, is valid because *Harrison* teaches:

- (a) services are subscribed to by customers;
- (b) QoS service information, used by those services, is stored in a directory information tree;
- (c) Since the validity period in the approach of *Harrison* defines the time frame in which an action of a policy should be performed, the validity period identifies a time period when information stored in a directory information tree is to be used by the service; and

- (d) Use of information stored in a directory information tree means that the information is valid.

However, it does not necessary follow that simply because the validity period value of a directory information tree is valid that the directory information tree is being used by a service. As explained above, the concepts of a validity period value as claimed and the validity period of *Harrison* as orthogonal. To illustrate, the Applicants specification teaches:

Information in an obsolete Directory Information Tree 410A, 410B may be erased only after its validity period concludes, i.e., after expiration of its validity period value 416A, 416B. The Validity period values 416A, 416B ensure that a writer process cannot erase data that a reader process is concurrently attempting to read (see page 18, lines 19-22).

The above-passage makes clear that an obsolete directory information tree may have a validity period value that is valid, e.g., to ensure that writer processes cannot erase data that a reader process is concurrently attempting to read. In sharp contrast, the validity period of *Harrison* defines the time frame in which an action of a policy should be performed. Thus, the validity period of *Harrison* cannot simultaneously be valid and be associated with an obsolete directory information tree. Information in an obsolete directory information tree, by virtue of being obsolete, is not used in performing a service. Consequently, **the validity period value as claimed cannot possibly be analogous to the validity period of *Harrison* because the validity period value as claimed, associated with an obsolete directory information tree, may be valid.**

Additionally, the Office Action's argument depends upon interrupting the validity period of *Harrison* as an indication of whether information stored in the directory information tree is currently being used by a service, i.e., whether the directory information tree storing the information is active. Assuming, *arguendo*, that this is true, such an interruption would not be analogous to a validity period value as claimed. FIG. 5B of the Applicant's application illustrates a flowchart of the functional steps of obtaining information from a directory service. Importantly, determining which directory information tree is currently active is performed in step 522, but reading the validity period value of the active directory information tree is performed in step 524. As shown in FIG. 5B, the steps of determining which directory information tree is active and which directory information tree has a valid validity period

value are separate and distinct steps. Knowledge of which directory information tree is the currently active directory information tree is not enough to determine the validity period value of the active directory information tree. Thus, as explained above, the concepts of *Harrison's* validity period of the validity period value as claimed are orthogonal.

As a result, numerous elements of Claims 1, 18, 26, and 27 are not shown by *Harrison*. For example, Claim 1 features the element of "receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a directory information tree, associated with the validity period value, is valid." This element is not disclosed, taught, or suggested by *Harrison*, as no portion of *Harrison* discusses receiving a validity period value as claimed.

Further, *Harrison* does not disclose, teach, or suggest the element of "retrieving the quality of service policy management information from the currently active directory information tree only during the time period within the validity period value thereof" featured in Claim 1. Instead, the portion of *Harrison* cited to show this element (Col. 4, lines 50-62; Coo. 10, lines 21-33) merely discusses a validity period of a condition of a policy and retrieving configuration information from a LDAP server. No portion of *Harrison* discusses retrieving quality of service policy management information from a currently active directory information tree only during the time period within the validity period value thereof. Consequently, this element is not disclosed, taught, or suggested by *Harrison*.

As one or more elements of Claim 1 are not disclosed, taught, or suggested by *Harrison*, it is respectfully submitted that Claim 1 is patentable over *Harrison*, and is in condition for allowance. As Claims 18, 26, and 27 each feature elements similar to those of Claim 1, it is respectfully submitted that, for at least the reasons given above with respect to Claim 1, that each of Claims 18, 26, and 27 are each patentable over *Harrison*, and each of Claims 18, 26, and 27 are in condition for allowance.

B. Claim 9

Independent Claim 9 features:

“receiving a name and creation time value associated with one of a plurality of directory information trees that are stored in the directory service in association with a directory information tree manager;  
receiving quality of service policy information from the one of the plurality of directory information trees;  
determining whether the name or creation time value of the one of the plurality of directory information trees have changed;  
determining that the quality of service policy information is successfully retrieved only when the name or creation time value of the one of the plurality of directory information trees are unchanged.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why *Harrison* teaches the individual elements of Claim 9, the Office Action states, “[A]s to claims 9-27 and 29-32, since the features of these claims can also be found in claims 1-4, 6-8, and 28, they are rejected for the same reasons set forth in the rejection of claims 1-4, 6-8, and 28 above.” This rejection overlooks the fact that no element featured in Claim 9 is recited in any one of Claims 1-4, 6-8, or 28.

The only argument offered by the Office Action explaining why Claim 9 is not patentable is:

As for the additional feature in claims 9 and 11 that requires retrieving the quality of service information under a condition that the name and creation time value associated with the quality of service policy information tree be unchanged: it is noted that *Harrison* teaches steps of consistency control at col. 6, lines 4-24, wherein the current (or active) tree of information is never altered, which naturally includes the various attributes such as name and creation time value [note that by default each directory entry must have a name, which is marked with a time of creation (see col. 2, lines 58-67)].

There is no support in the cited portion of *Harrison* (col. 6, lines 4-24; col. 2, lines 58-67) to support the Office Action’s assertion that the elements of Claim 9 are suggested by *Harrison*. The cited portion of *Harrison* does not contain any mention of receiving a name and creation time value associated with a directory information tree that is stored in the directory service in association with a directory information tree manager. Further, no portion in this section discusses determining whether the name or creation time value of a directory information tree has changed. Also, no portion in this section discusses determining that the

quality of service policy information is successfully retrieved only when the name or creation time value of a directory information tree are unchanged.

Instead, this portion of *Harrison* teaches away from the approach of Claim 9 by asserting that information may be retrieved from a directory tree at any time, without restriction. While this portion of *Harrison* discusses restrictions for updating information stored in a directory tree, it does not contain any suggestions of any restrictions to when information may be read from a directory tree. To illustrate, this portion suggests information may be read from an active directory tree or an inactive directory tree, and contains no suggestion of when information cannot be read from a directory tree. Thus, the rationale of the Office Action in rejecting Claim 9 is contradicted by the teachings of *Harrison*.

The Office Action responds to the above argument by asserting (a) *Harrison's* directory resembles a directory like UNIX, so naming an information tree and recording its creation time are inherent, (b) *Harrison's* directory trees are downloaded only when no partial modifications have been made to the same tree.

However, assuming the above assertions true, this argument does not indicate how *Harrison* teaches “determining whether the name or creation time value of the one of the plurality of directory information trees have changed.” No portion of *Harrison* is cited to show this step. At best, the Office Action provides the unsupported assertion that since “*Harrison's* directory trees takes the resemblance of a nominal directory in operation systems like Unix and Windows, it is submitted that naming and information tree and recording its creation time are inherent features.” However, this unsupported assertion does not attempt to explain how *Harrison* teaches determining whether the name or creation time value of a directory information tree has changed.

Similarly, the Office Action fails to explain why *Harrison* teaches the element of “determining that the quality of service policy information is successfully retrieved only when the name or creation time value of the one of the plurality of directory information trees are unchanged.” Since *Harrison* does not determine whether names or creation time values of directory information trees have changed, the Office Action ignores this feature and instead argues that this element is shown because *Harrison* teaches an approach for performing atomic transactions using directory information trees. However, such a teaching does not



suggest the features of this element because quality of service policy information is successfully retrieved only when the name or creation time value of the one of the plurality of directory information trees are unchanged, which is differently than requiring a modification to any part of the directory information tree to be wholly performed. As previously explained, *Harrison* discusses restrictions for updating information stored in a directory tree, but does not contain any suggestions of any restrictions to when information may be read from a directory tree.

Consequently, it is respectfully submitted that Claim 9 is patentable over the cited art, and is in condition for allowance.

C. Claim 11

Independent Claim 11 features:

“receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a directory information tree, associated with the validity period value, is valid; providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information tree, and an old directory information tree value that references a formerly active directory information tree; when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree as indicated by the active directory information tree value of the directory information tree manager; retrieving the quality of service policy management information from the currently active directory information tree only during the time period within the validity period value thereof.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why *Harrison* teaches the individual elements of Claim 11, the Office Action states, “[A]s to claims 9-27 and 29-32, since the features of these claims can also be found in claims 1-4, 6-8, and 28, they are rejected for the same reasons set forth in the rejection of claims 1-4, 6-8, and 28 above.” This rejection overlooks the fact that several elements featured in Claim 11 are not recited in any one of Claims 1-4, 6-8, or 28.

The only argument offered by the Office Action explaining why Claim 11 is not patentable is:

As for the additional feature in claims 9 and 11 that requires retrieving the quality of service information under a condition that the name and creation time value associated with the quality of service policy information tree be unchanged: it is noted that *Harrison* teaches steps of consistency control at col. 6, lines 4-24, wherein the current tree of information is never altered, which naturally includes the various attributes such as name and creation time value.

There is no support in the cited portion of *Harrison* (col. 6, lines 4-24) to support the Office Action's assertion that the elements of Claim 11 are suggested by *Harrison*. Indeed, the Office Action's argument only mentions features of Claim 9, and does not contain any mention of any features of Claim 11.

As explained above with reference to Claims 1, 18, 26, and 27, *Harrison* does not disclose, teach, or suggest a validity period value as claimed. Consequently, the element of "receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a directory information tree, associated with the validity period value, is valid" is not disclosed, taught, or suggested by *Harrison*. Further, the element of "retrieving the quality of service policy management information from the currently active directory information tree only during the time period within the validity period value thereof" is not disclosed, taught, or suggested by *Harrison*. Consequently, it is respectfully submitted that Claim 11 is patentable over the cited art, and is in condition for allowance.

D. Claim 17

Independent Claim 17 features:

"creating and storing a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager;  
when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree;

receiving a validity period value of the directory information tree manager, wherein the validity period value stores information that defines a time period in which the currently active directory information tree is valid; if the validity period value of the directory information tree manager is currently valid, then performing the steps of:  
receiving a name value and a validity period value of a currently active directory information tree; and  
retrieving quality of service policy information from the active directory information tree only during the time period indicated by the validity period value of that active directory information tree.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

Rather than explaining why Claim 17 is or is not patentable, the Office Action states, “As to claims 9-27 and 29-32, since the features of these claims can also be found in claims 1-4, 6-8, and 28, they are rejected for the same reasons set forth in the rejection of claims 1-4, 6-8, and 28 above.”

Numerous elements recited in Claim 17 are not featured in any of Claims 1-4, 6-8, and 28. For example, the five elements of Claim 17 beginning with (a) “creating and storing,” (b) “receiving a validity period value,” (c) “if the validity period value of the directory information tree manager is currently valid,” (d) “receiving a name value and a validity period value,” and (e) “retrieving quality of service policy information” are not present in any of Claims 1-4, 6-8, and 28. Thus, there are currently no substantive arguments on the record against the patentability of Claim 17.

As explained above, there are numerous, fundamental differences between the approach of *Harrison* and the pending claims. For example, as explained above, *Harrison* does not disclose, teach, or suggest a validity period value as featured in Claim 17.

The Office Action argues, “Claims 17, 29, 32 each recite slight variations or includes implementation details of the method claims that were prior rejected. If Applicant disagrees, Applicant is expected to point out each of the variations that are deemed to be patentable subject matter. Applicants respectfully disagree. The burden is on the Patent Office to either (a) allow the claims, or (b) provide an explanation as to why a claim is not new or non-obvious in view of the prior art. The Applicants’ position is that each of the pending claims is patentable over the cited art. Applicants have already identified, in their prior response, several elements of Claim 17 that are not disclosed, taught, or suggested by the prior art.

Currently, Claim 17 has been rejected four times without an explanation as to why the prior art teaches or suggests Claim 17. Consequently, Applicants respectfully request Claim 17 be allowed, or an explanation be provided as to why the elements of Claim 17 are not patentable over the cited art.

E. Claim 29

Independent Claim 29 differs considerable in form and scope and features:

“testing a validity designation value after carrying out a read operation, wherein the validity designation value is associated with one of a plurality of directory information trees that are created and stored in a directory service in association with a directory information tree manager, and wherein the plurality of directory information trees are associated with quality of service policy information; and verifying the validity of information that has been read during the read operation by determining whether the validity designation value is currently null.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

In rejecting Claim 29, the Office Action stated: “As to claims 9-27 and 29-32, since the features of these claims can also be found in claims 1-4, 6-8, and 28, they are rejected for the same reasons set forth in the rejection of claims 1-4, 6-8, and 28 above.” This is incorrect. The elements recited in Claim 29 are not featured in any of Claims 1-4, 6-8, and 28. Thus, there are currently no substantive arguments on the record against the patentability of Claim 29.

As explained above, there are numerous, fundamental differences between the cited art and the pending claims. In particular, the elements of “testing a validity designation value after carrying out a read operation,” and “verifying the validity of information that has been read during the read operation by determining whether the validity designation value is currently null” are not disclosed, taught, or suggested by *Harrison*.

The Office Action argues, “Claims 17, 29, 32 each recite slight variations or includes implementation details of the method claims that were prior rejected. If Applicant disagrees, Applicant is expected to point out each of the variations that are deemed to be patentable subject matter. Applicants respectfully disagree. The burden is on the Patent Office to either (a) allow the claims, or (b) provide an explanation as to why a claim is not new or non-

obvious in view of the prior art. The Applicants' position is that each of the pending claims is patentable over the cited art. Applicants have already identified, in their prior response, several elements of Claim 29 that are not disclosed, taught, or suggested by the prior art. Currently, Claim 29 has been rejected four times without an explanation as to why the prior art teaches or suggests Claim 29. Consequently, Applicants respectfully request Claim 29 be allowed, or an explanation be provided as to why the elements of Claim 29 are not patentable over the cited art.

F. Claim 32

Independent Claim 32 features:

“a machine readable medium carrying at least  
a plurality of directory information trees associated with quality of service  
policy information, each directory information tree includes at least a  
policy sub-tree that has at least one or more role objects, one or more  
service template objects, and one or more policy decision point objects,  
wherein the one or more role objects, one or more service template  
objects, and one or more policy decision point objects are related to the  
quality of service information;  
one or more sequences of stored instructions accessible to the processor and  
which, when executed by a processor, cause the processor to carry out  
the steps of:  
determining that one or more objects in one of the directory information trees  
has been modified by a process and rewriting to the directory service  
only such objects, service template objects, and policy decision point  
objects as have been modified by the process.”

The above-quoted elements are not disclosed, taught, or suggested by the cited art.

In rejecting Claim 32, the Office Action stated: “As to claims 9-27 and 29-32, since the features of these claims can also be found in claims 1-4, 6-8, and 28, they are rejected for the same reasons set forth in the rejection of claims 1-4, 6-8, and 28 above.” This is incorrect. The elements recited in Claim 32 are not featured in any of Claims 1-4, 6-8, and 28. Thus, there are currently no substantive arguments on the record against the patentability of Claim 32.

As explained above, there are numerous, fundamental differences between the cited art and the pending claims. In particular, the element of “determining that one or more objects in one of the directory information trees has been modified by a process and rewriting to the

directory service only such objects, service template objects, and policy decision point objects as have been modified by the process” is not disclosed, taught, or suggested by *Harrison*.

The Office Action argues, “Claims 17, 29, 32 each recite slight variations or includes implementation details of the method claims that were prior rejected. If Applicant disagrees, Applicant is expected to point out each of the variations that are deemed to be patentable subject matter. Applicants respectfully disagree. The burden is on the Patent Office to either (a) allow the claims, or (b) provide an explanation as to why a claim is not new or non-obvious in view of the prior art. The Applicants’ position is that each of the pending claims is patentable over the cited art. Applicants have already identified, in their prior response, several elements of Claim 32 that are not disclosed, taught, or suggested by the prior art. Currently, Claim 32 has been rejected four times without an explanation as to why the prior art teaches or suggests Claim 32. Consequently, Applicants respectfully request Claim 32 be allowed, or an explanation be provided as to why the elements of Claim 32 are not patentable over the cited art.

G. Dependent Claims 2-8, 10, 12-16, 19-25, 28, and 30-31

Claims 2-8, 10, 12-16, 19-25, 28, and 30-31 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 2-8, 10, 12-16, 19-25, 28, and 30-31 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 2-8, 10, 12-16, 19-25, 28, and 30-31 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

### CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any fee shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP



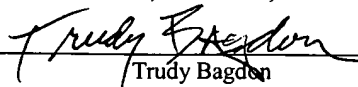
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On August 8, 2005 By

  
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